

Application No. 10/784,322

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one.

1. (Original) A composition comprising a polymer covalently bonded to the side walls of carbon nanotubes.
2. (Original) The composition of claim 1 wherein the nanotubes comprise single wall carbon nanotubes, multiple wall carbon nanotubes, or a combination thereof.
3. (Original) The composition of claim 1 wherein the carbon nanotubes are present in a concentration of less than about 50 percent by weight.
4. (Original) The composition of claim 1 wherein the carbon nanotubes are present in a concentration from about 0.1 percent by weight to about 40 percent by weight.
5. (Original) The composition of claim 1 wherein the polymer is selected from the group consisting of PEI, Polyimide, Poly ether sulfone (PES), Poly phenyl sulfone (PPS), Per fluoro alkoxy (PFA), Fluorinated ethylene propylene (FEP), Ethylene tri fluoro ethylene (ETFE) Poly sulfone, Polystyrene, Poly ether Ketone (PEK), Poly ether ketone ketone (PEKK), polybutylene terephthalate (PBT), polyolefins (PO), polyethylene terephthalate (PET), styrene block co-

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polymers, styrene-butadiene rubber, nylon in the form of polyether block polyamide (PEBA), polyetheretherketone (PEEK), poly(vinylidenefluoroide), poly(tetrafluoroethylene) (PTFE), polyethylene, polypropylene, poly(vinylchloride) (PVC), ethyl vinyl acetate and blends and copolymers thereof.

6. (Original) The composition of claim 1 wherein the carbon nanotubes have functional groups attached to the side walls that bridge between the walls of the nanotubes and the polymer.
7. (Original) The composition of claim 6 wherein the polymer is a multifunctional polymer having two or more functional groups that are covalently bonded with carbon nanotubes.
8. (Original) The composition of claim 7 wherein the polymer is covalently bonded to the nanotubes to form polymer-nanotube structures that can self order.
9. (Original) The composition of claim 7 wherein the polymer is covalently bonded to the nanotubes such that polymer chains are crosslinked by the nanotubes.
10. (Original) An article comprising the composition of claim 1.
11. (Original) The article of claim 10 wherein the article comprises a wafer carrier suitable for transporting semi-conductor wafers.

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12. (Original) The article of claim 10 wherein the article comprises a bipolar plate.

13. (Original) The article of claim 10 wherein the article comprises an electrode.

14.-62. (Canceled)